ROYAL SOCIETY.

OCTOBER, 1871.

The monthly evening meeting of the Society was held on Tuesday, the 10th October, M. Allport, Esq., in the chair.

The following gentlemen, who had previously been nominated by the Council, were after a ballot declared duly elected as Fellows of the Society, viz., John Swan, Esq., M.H.A., W. E. Crowther, Esq., and R. J. Creasey, Esq.

The following returns were brought under notice :—

1. Visitors to Museum during August, 1,241 ; September, 849.
2. Visitors to Gardens during August, 1,779 ; September, 2,214.
3. Plants, seeds, &c., received at and sent from Gardens during August and September.
4. Plants supplied for decoration of public places during August and September :—
   a. For Government House grounds 50 plants.
   b. For Public Offices and Franklin Square 48 plants.
   c. For Public Buildings, Launceston, 18 plants.
   d. For Green Ponds Church 100 plants.
   e. For Catholic Cathedral, Harrington-street, 60 plants.
5. Time of leafing, flowering, &c., of a few standard plants in Society's Garden, during August and September.
6. Books and periodicals received.
7. Presentations to Museum.

Meteorological Returns.

1. Hobart Town, from F. Abbott, Esq., table for September.
2. Port Arthur, from A. H. Boyd, Esq., table for August and September.
3. Westbury, from C. Belstead, Esq., table for August and September.
4. Swansea, from Dr. Story, table for August and September.
5. Sydney, from the Government Observer, printed tables for June and July.

The Secretary then read the Notes on the Meteorology and Mortality of the Hobart Town Registration District during the month of September, 1871, by Dr. E. Swarbreck Hall.

The presentations to the Museum were as follow :—

1. From the South Australian Institute Museum, Adelaide—A named collection of bird skins from the Northern Territory. (56 specimens, comprising 36 varieties.)
2. From Mr. D. Chisholm—An Arabic or Persian coin, found at Clarence Plains by Mr. W. Free. A specimen of *Syngnathus*, and one of *Hippocampus*.
3. From Mr. J. Cassidy—A Spirifer (silicified), from Point Puer, Tasman's Peninsula.
4. From Mr. E. J. Webb—Two white cockatoos.
5. From Mr. Baynton, Brown's River—A specimen of the "native bread."
5. From Mr. Ross, Battery Point—A Snake, said to be from Fiji.
6. From Mr. Stephens—A fine specimen of the large Australian Volute. *(Voluta magnifica.)*
7. From Mr. W. Simpson—An unusually large egg of the domestic goose. Weight of egg 10½ oz.

8. From Mr. J. W. Graves—A common Sparrow, one of several found dead, probably poisoned, in Macquarie-street.
9. From Mr. J. Pearce—Two American notes ("Greenbacks"), value 50 cents. and 10 cents.
10. From Mr. J. W. Graves—Bulletin of the French Acclimatisation Society, Nos. 3 and 4, March and April, 1869.
11. From Hon. J. A. Dunn, Esq.—Two pamphlets on South Africa, forwarded by Sir H. Barkly to the Government of Victoria.
12. From Mr. Clifford, per Mr. M. Allport, skull of Wild Boar from New Zealand.
13. From Mr. R. C. Read, New Norfolk—A recent specimen of Swainson's Lorikeet (*Trichoglossus Swainsonii*), shot at New Norfolk, from among a flock of common green parrots.
14. From Mr. F. S. Edgar—Shell of small Turtle.
15. From Mr. W. Felmingham, per Mrs. C. Meredith—A fish, (*Uranoscopus sp.*) caught near Maria Island.
16. From Mr. W. Hatton, Elizabeth-street—A copy of Barker's Bible, printed in 1637.
17. From Mr. Wiggins—A fish, probably a species of Carp, from Mauritius.
18. From Captain Williams, of the Kestrel—Four shells from East Coast, Tasmania.
19. From the executors of the late Mrs. Butler—230 specimens of shells. An earthenware lamp from a tomb at Misenum, Naples. Portion of a human jaw from Pompeii. A small earthenware cup from an ancient tomb at Athens. Mosaics, &c., from Baiæ Beach, near Cumæ, Naples; &c., &c.
20. From Mr. J. G. Moir—Fossils (casts of *Spirifers*, &c.) from the limestone, near Brown's River.
21. From Mr. J. Mitchell—A French coin (Dix centimes) Napoleon, III., 1856.
22. From the author, Baron F. Von Mueller—A pamphlet on "Forest culture in its relation to industrial pursuits."
23. From Mr. W. Blyth, Honeywood—Seeds of Waratah.
24. From the Rev. H. D. Atkinson—Three geological specimens from Peppermint and Birch's Bays.
25. From Mrs. Fielding Browne—23 silver, and 22 copper coins and tokens, viz. :—*Silver* : One 5 lire, Italy, Napoleon I., 1808; five 10 cents, ditto ditto, 1808; one 10 soldi, ditto, ditto, 1813; one franc, France, Charles X., 1826; one half ditto, ditto ditto, 1827; one ditto ditto, Louis Philippe, 1843; one ditto ditto, 1835; one coin, Spain, Philip V., 1738; one quarter dollar, ditto, Charles III., 1768; one ditto, ditto, Charles IV., 1799; one dime, America, 1845; ditto ditto 1845; one half-crown, Bank of England token, George III., 1808; one shilling, colony of Essequibo, George III., 1808; one quarter, ditto ditto, 1816; two quarters (cut) of Spanish dollar, 2 unknown. *Copper* : One penny, George III. (?); one half ditto, George II., 1735; ditto, Prince of Wales (no date); one half anna, East India Co., 1845; one 20 cash, ditto, 1803; one coin, French Republic; one coin, Isabella II., Spain, 1836; one ditto, Brazil, 1828; two ditto, Russia, 1831, &c.; one 10 cents, Napoleon I.; two doits, Java, &c.; seven English and colonial tokens.

The SECRETARY directed attention to a handsome present of books received from America, through the Smithsonian Institution. Among these were the recent publications of the Smithsonian Institution; the Boston Society of Natural History; the Department of Agriculture,

United States; the Essex Institute; the American Philosophical Society; the Portland Society of Natural History; the American Academy of Arts and Sciences, Boston; the United States Coast Survey Department, &c. &c.

The SECRETARY in bringing under the notice of the meeting some products of the beet prepared by Mr. Atkins, of the Cascades House of Correction, observed it was well known that the Society had long recognised the great value of the sugar-beet, and information in reference to it has from time to time been obtained and placed before the public. Papers by two of our members, Mr. Barnard and Mr. J. Walker, giving some details as to the beet sugar manufacture have been read at former meetings. From these and from other notices in the public press a considerable amount of attention had been directed to the beet-root, and in anticipation of a demand for fresh seed of the best quality—the White Silesian—a plot of ground in the Society's Gardens, had been planted with this variety. The meeting would be glad to hear that this anticipation had been fully realised, so that within the last few weeks applications had been received from upwards of seventy individuals from various parts of the colony, to all of whom parcels of seed have been furnished. It had now, therefore, been extensively distributed over the island, and no doubt the growers would of themselves take care to preserve in future whatever seed they may require whether for cultivation, sale, or distribution. As to attempts to extract the sugar from the beet he (the Secretary) thought they would be premature. In the neighbouring colonies they were vigorously at work attempting to solve this problem economically, with greater means and resources than Tasmania at present could command. In the course of a year or so we should have all the benefit of our neighbours' experiments without loss of capital, or misdirected energy on our part, and in the meantime it would be well for our farmers to acquire further knowledge of the beet, its best mode of cultivation, the soils most suitable for its growth, &c. (Hear.) Only an hour or two before the meeting he had received a note from a correspondent, experienced in the general management of stock, who informed him the beet was not only admirable for cattle and horses, but was also most excellent for poultry of every kind. In all cases it was given in the raw state. From Mr. Jackson, the owner of a dairy at Sandy Bay, the Society had received a communication on this subject from which he (the Secretary) would read "Last season was so bad that I had got no crop from mangolds after sowing them twice. I put in some beet seed quite as a forlorn hope in December, which was two months later than it ought to have been. From these, late as the season was, I had six tons of roots to the acre, and have since had reason to be so satisfied of their value for feeding purposes that I shall for the future pay a great deal more attention to their growth. The cattle eat them most ravenously, and are not so subject to scouring as on mangolds. They give no disagreeable flavour to either milk or butter."

The SECRETARY read the following communication, from the Hon. J. Maclanachan, Esq., on the rabbit nuisance :—

Ballochmyle, Tunbridge,
31st August, 1871.

My dear Dr. Agnew,—In compliance with your request I give you my experience in the destruction of rabbits as briefly as I can.

Previous to August, 1870, I used guns only without any apparent diminution of their number. On the contrary they increased to such an extent that I saw, if allowed to continue, starvation and death to every other grass-existing animal would be the consequence. I determined to cut down all the gorse about the homestead and fences on the runs, and hearing that the Messrs. Taylor, of Macquarie River, had been very suc-

cessful in blocking them up in their burrows, I adopted this plan and succeeded beyond my expectations. The work is rather slow, but sure, if properly done. My mode of doing it was with round wood of any sort cut into billets 18 or 20 inches long, and in every burrow had a billet larger than the hole, driven in by a strong man with a heavy iron maul, as far as he could get it, which was generally a little way inside the burrow, then level down the entrance of the hole over the end of the billet of wood, and the thing is complete. Its success, as I have said before, depends entirely on the work being properly done. Trustworthy men, if possible, should be employed; failing this, doubtful men require constant watching. When properly done very little fear of rabbits burrowing out, but great danger of outsiders burrowing in. To meet this I let the men have a fast dog to pick up outsiders, and made them begin work at the homestead and work outwards, so that they had to walk to and from their work daily over the work previously done, and wherever they saw a new burrow to block it up at once. I continued this work until the end of October, 1870, when other work compelled me to leave it off until March of this year. At this busy time failing to get good men I adopted another mode—that of giving ninepence a dozen for all grown rabbits killed on my ground and brought to me every night to be counted; and to prevent the possibility of their being brought a second time I cut one ear off each rabbit. For a short time the hands employed killed at the rate of 1,200 and odd a week, but the numbers soon became less and gradually decreased. On some parts of the land not two rabbits are to be seen where hundreds were before, and on all other parts, so much reduced in numbers, as to convince me that if every sufferer from these pests would go at them with a will the nuisance would soon be very much abated, and with perseverance put down altogether, but this will not be done without the aid of Parliament.

During the lambing season I stopped the men and tried the poison (strychnine), first with fruit and carrots with good results, and afterwards with oats slightly crushed with still better results. The mode of preparation has been so well described by Mr. Bisdee, of Hutton Park, from whom I got it, that I need not repeat it. I made small enclosures to put the poisoned oats in that the sheep could not get at it. I find now the grass is growing. The rabbits are so shy of the poisoned oats that I have again employed hands to kill them at so much per dozen. I believe the blocking up with good men to be the best mode tried except the poisoned oats.

Yours, &c.,

J. MACLANACHAN.

Mr. SWAN said when the ground was sandy the rabbits could easily be destroyed, by simply filling in the burrows to the extent of a foot or two with the sand. He had frequently seen dead rabbits taken out after this process. It was satisfactory to know that the expense of destroying them was partly recouped by the value of the skins in the English market. In London they had sold at 2s. 1d. per dozen, and at Bradford as high as 3s.

Mr. T. GIBLIN observed the export of skins was assuming great proportions. Mr. Fysh alone had exported 13 bales, in addition to which Mr. Bidencope had sent a large number.

The BISHOP of Tasmania felt that Government assistance was required, in order that some general and systematic action should be taken in the matter. It was useless for one or two settlers to destroy rabbits if their neighbours, whether owners of land or Crown tenants, made no attempt to clear their runs. It was well, however, to know that, as far as he could learn, the rabbits were really not making much headway except on sandy ground. He thought it would tend much to their destruction if their flesh possessed an economic value, and this could readily be given to it by the formation of meat-preserving companies. Both flesh and skins could then be profitably disposed of.

Mr. GOULD, whilst agreeing that some general action was necessary,

was afraid, if the tenants of the Crown lands were taxed for the purpose, that in many cases they would throw up their holdings, and how in such cases could Government act?

The following extract from a letter received by the Governor from F. S. Corrance, Esq., M.P., was read :—

"In reference to your remarks on your salmon question, I have only to observe that in my opinion, even after the inhabitant shall have declared himself in a most unmistakeable way, it will be at least some years before the fish could become sufficiently abundant for fishing for them, to have a chance of meeting with much success. It is, moreover, by no means an invariable propensity of the race to rise at a fly at all, and in the European rivers limited to about one-half. In none of the Dutch, nor Swedish, and in few English rivers is this the case, and it depends, as I think, upon the habits of the parr and smolts in their early life whether they do so or not. So you see that this part of the problem is scarcely likely to be worked out in your time at least. You say that the fords, &c., of the upper waters are more than 100 miles off, and that the banks of the river Derwent in those parts run for many miles through an uninhabited and almost impassable district. I do not think that ought to present an insuperable objection to an exploring expedition to that district at the proper time of year, by competent persons, and I should think such an expedition would be generally popular, considering the important results to the colony of a successful solution of this problem. All the shallows should be watched and reported upon. The time of year would be the autumn months."

His Excellency adds :—

"The writer of the above remarks is my brother-in-law, and there are few more experienced salmon fishers to be found in England, or possessing better knowledge of the salmon rivers of the United Kingdom and continent of Europe."

Mr. M. ALPORT repeated what he had expressed on a former occasion, viz., that the expense of watching the upper waters of the Derwent would be far beyond the means at the disposal of the Salmon Commissioners. If we knew where the spawning beds were, it would be easy to watch them ; but to search for them during the season would be a work of vast trouble and expense.

Mr. GOULD read a paper on the geological structure of Flinders' Island in Bass' Straits, and illustrated his remarks by a large and very beautiful collection of specimens obtained by him during his stay there. He especially directed the attention of the meeting to the exceptionally fine crystals of Orthoclase Felspar, which had been obtained from cavities in the granite, and which he considered equalled in perfection those obtained from any part of the world. He also exhibited specimens of beryl, remarkable varieties of granite, specimens of crystals of topaz and felspar *in situ* in masses of rock, and supplemented his paper by a variety of additional observations elicited by the attention of the members to the examples before them—more especially in regard to a sample of tin ore of great purity and value.

Further discussion of a conversational character ensued, in which the Rev. Brooke Bailey, Mr. Barnard, Mr. Stephens, and others took part. A vote of thanks having been accorded to Mr. Gould for his valuable and interesting paper, and to the donors of presentations, the meeting terminated.